

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Previously presented) A catalytic system comprising:  
a ceramic support comprising alumina, said ceramic support including a surface that comprises a monolayer of an adhesive agent provided on said surface, said adhesive agent comprising at least one of titanium, zirconium, scandium, hafnium, lanthanum, and yttrium metals; and  
a plurality of metal catalyst particles attached to the surface of said ceramic support wherein said monolayer of the adhesive agent provides increased adhesion between the ceramic support and the plurality of metal catalyst particles.
2. (Original) A catalytic system according to claim 1 wherein said ceramic support is in the shape of a particle.
3. (Original) A catalytic system according to claim 1 wherein said metal catalyst particles are selected from the group consisting of nickel, palladium and platinum.
4. (Original) A catalytic system according to claim 1 wherein said adhesive agent is in the form of a  $\frac{1}{4}$  to  $\frac{3}{4}$  monolayer on said surface.
5. (Previously presented) A catalytic system according to claim 1 wherein said adhesive agent is applied to the surface of the ceramic support as reduced metals.
6. (Original) A catalytic system according to claim 1 wherein two or more adhesive agents are present at the surface of said support.
7. (Previously presented) A catalytic system according to claim 1 wherein the ceramic support further comprising a second surface on which a monolayer of said adhesive agent is provided; and

the catalytic system further comprising a monolith attached to said second surface of the ceramic support.

8. (Previously presented) A catalytic system according to claim 7, the monolith having a surface comprising metal on which said second surface of the ceramic support is attached.

9. – 16. (Canceled)

17. – 23. (Canceled)

24. (Previously presented) A catalytic system according to claim 1 wherein said adhesive agent is in the form of a  $\frac{1}{2}$  monolayer on said surface.

25. (Previously presented) A catalytic system according to claim 7 wherein the monolayer of the adhesive agent on said second surface of the ceramic support is in the form of a  $\frac{1}{4}$  to  $\frac{3}{4}$  monolayer.

26. (Previously presented) A catalytic system according to claim 7 wherein the monolayer of the adhesive agent on said second surface of the ceramic support is in the form of a  $\frac{1}{2}$  monolayer.

27. (Previously presented) A catalytic system according to claim 1 wherein the adhesive agent is applied to the surface of the ceramic support as suboxides.

28. (Previously presented) A catalytic system according to claim 7 wherein the adhesive agent is applied to the second surface of the ceramic support as reduced metals.

29. (Previously presented) A catalytic system according to claim 7 wherein the adhesive agent is applied to the second surface of the ceramic support as suboxides.

30. (New) A method for making a catalytic system comprising the steps of:

providing a ceramic support comprising alumina, said ceramic support including a surface that comprises a monolayer of an adhesive agent provided on said surface;

treating said surface with an adhesive agent to provide a modified surface that is doped with said adhesive agent, said adhesive agent comprising at least one of titanium, zirconium, scandium, hafnium, lanthanum, and yttrium metals; and

attaching a plurality of metal catalyst particles to the modified surface of said ceramic support whereby said monolayer of the adhesive agent provides increased adhesion between the ceramic support and the plurality of metal catalyst particles.

31. (New) The method of claim 30 wherein said ceramic support is in the shape of a particle.

32. (New) The method of claim 30 wherein said metal catalyst particles are selected from the group consisting of nickel, palladium and platinum.

33. (New) The method of claim 30 wherein said adhesive agent is in the form of a  $\frac{1}{4}$  to  $\frac{3}{4}$  monolayer on said surface.

34. (New) The method of claim 30 wherein two or more adhesive agents are present at the surface of said support.

35. (New) The method of claim 30 that includes the additional step of attaching said supported metal catalyst to a metallic monolith structure.

36. (New) The method of claim 31 that includes the additional step of attaching said supported metal catalyst to a metallic monolith structure.